

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 14, 18, 21, 24, 27, 29 and 31, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): A semiconductor device manufacturing apparatus that uses a thermal CVD reaction to deposit a film onto a substrate, said apparatus having a vaporizer for vaporizing a raw material to form a vapor phase deposition material deposited in crystalline form, and a power supply for supplying a d.c. electrical potential [[to]] across said substrate or said film deposited thereupon, said supplied d.c. electrical potential being used to orient ~~orienting~~ the crystal of said vapor phase material in the direction of the electrical field induced [[in]] by said d.c. electrical potential.

Claim 2 (previously presented): A semiconductor device manufacturing apparatus according to claim 1, wherein said power supply supplies said d.c. electrical potential to said substrate or said film deposited thereupon, either directly or indirectly.

Claim 3 (previously presented): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply comprises a power supply source and electrode terminals which are connected to said power supply source and to said substrate or said film deposited thereupon.

Claim 4 (previously presented): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply further comprises a d.c. electrical potential controller which controls said potential to be supplied to said substrate or said film deposited thereupon.

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 5 (previously presented): A semiconductor device manufacturing apparatus according to claim 4, wherein said d.c. electrical potential controller controls said potential to be supplied to said substrate or said film deposited thereupon, either continuously or intermittently.

Claim 6 (previously presented): A semiconductor device manufacturing apparatus according to claim 4, wherein said electrode terminals are provided on peripheral area of either said substrate or a region on which said film being deposited on said substrate.

Claims 7-10 (cancelled)

Claim 11 (previously presented): A semiconductor device manufacturing apparatus according to claim 4, wherein said d.c. electrical potential controller controls said voltage applied to at least one of a pair of electrode terminal units so as to change said voltage value, either continuously or intermittently with respect to the time elapsing.

Claim 12 (cancelled)

Claim 13 (previously presented): A semiconductor device manufacturing apparatus according to claim 4, wherein said d.c. electrical potential controller further includes a detector for detecting either one of potential and voltage applied to said substrate or said film deposited thereupon whereby said d.c. electrical potential controller controls the value of either said potential or said voltage in response to a result of said detector.

Claim 14 (currently amended): A semiconductor device manufacturing apparatus according to claim 4, said apparatus further provided with a temperature ~~controlling means~~ controller for controlling the temperature of electrode terminal units and wherein said d.c. electrical potential controller further includes a detector for detecting either one of potential and

or voltage applied to said substrate or said film deposited thereupon whereby said temperature controller controls temperature so as to change a temperature of said substrate or said film deposited thereupon, in response to a result of said detector.

Claims 15-17 (cancelled)

Claim 18 (currently amended): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply comprises a power supply source and a non-contact electrical potential supply which is connected to said power supply source and supplying said d.c. electrical potential to said substrate or said film deposited thereupon, without making said potential supply [[to]] be directly connected thereto.

Claim 19 (cancelled)

Claim 20 (previously presented): A semiconductor device manufacturing apparatus according to claim 18, wherein said power supply further comprises a potential controller which controls value of said potential to be applied to said non-contact electrical potential supply.

Claim 21 (currently amended): A semiconductor device manufacturing method for depositing a film on a substrate by a thermal CVD reaction, wherein a raw material is vaporized to form a vapor phase deposition material, and said film is deposited on said substrate while a d.c. electrical potential is applied [[to]] across said substrate or film deposited thereupon, for orienting the crystal of said vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.

Claim 22 (previously presented): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while the d.c. electrical potential on said substrate or film deposited thereupon is arbitrarily set.

Claim 23 (previously presented): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while the d.c. electrical potential is applied to said substrate or said film deposited thereupon, intermittently.

Claim 24 (currently amended): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while said d.c. electrical potential is varied either intermittently or continuously.

Claim 25 (previously presented): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while a direction of said d.c. electrical potential applied to said substrate or said film deposited thereupon, is changed, either intermittently or continuously.

Claim 26 (original): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while a temperature of said substrate or of said film deposited thereupon, is varied.

Claim 27 (currently amended): A semiconductor device manufacturing method [[apparatus]] according to claim 21, wherein either one of a voltage value or a [[and]] potential value is varied either intermittently or continuously.

Claim 28 (previously presented): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while setting the potential of said substrate or film deposited thereupon to a ground potential.

Claim 29 (currently amended): A semiconductor device manufacturing method for depositing a film on a substrate by a thermal CVD reaction, wherein a d.c. electrical potential is applied ~~[[to]]~~ across said substrate or film deposited thereupon without making contact with said substrate or film deposited thereupon, ~~for orienting the crystal of said vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.~~

Claim 30 (original): A semiconductor device manufacturing method according to claim 29, wherein magnetic flux is applied to said substrate or film deposited thereupon.

Claim 31 (currently amended): A semiconductor device manufacturing method comprising:

~~a step of~~ depositing a film into a substrate using a thermal CVD reaction; and
~~a step of~~ depositing a film from a thermal CVD reaction by applying a d.c. electrical potential ~~[[to]]~~ across either one of said substrate and said deposited film, for orienting the crystal of ~~[[aid]]~~ said vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.

Claim 32 (cancelled)